

Table of Contents

Summary	1
Chapter 1: Introduction	1-1
1.1 Requirements of the Watershed Sanitary Survey	1-1
1.2 Objectives of the Watershed Sanitary Survey	1-1
1.3 Conduct of the Watershed Sanitary Survey	1-1
1.4 Basic Water Rights.....	1-2
1.5 Historical Background	1-7
1.6 Water Operations Plan.....	1-11
Chapter 2: Description of the Source Water System	2-1
2.1 Water Sources	2-1
Imported Water	2-3
Local Runoff	2-4
2.2 Source Water Reservoirs	2-7
San Diego River System	2-11
Otay-Cottonwood System	2-16
Miramar System.....	2-19
Hodges System.....	2-20
2.3 Emergency Plans.....	2-22
Chapter 3: Conditions within the Local Source Water System	3-1
3.1 Erosion.....	3-1
3.2 Geology.....	3-5
Geology within the Local Source Water System	3-7
Soils and Slope	3-8
Geologic Hazards and Contaminants.....	3-9
3.3 Biology	3-14
Vegetation.....	3-14
Wildlife	3-20
Land Ownership and Population	3-20
Aquatic Invasive Species	3-23
Biologic Hazards and Contaminants	3-26
Chapter 4: Potential Contaminant Sources within the Local Source Water System	4-1
4.1 Point Source	4-4
Hazardous Material and Waste Sites	4-7
(Concentrated) Animal Feeding Operations.....	4-8

Mines	4-12
Wastewater Treatment Facilities	4-14
Sanitary Sewer Overflows (SSO's)	4-20
4.2 Nonpoint Source	4-23
Septic Systems	4-24
Agriculture.....	4-29
Grazing	4-32
Recreation.....	4-34
Fires	4-35
 Chapter 5: Water Quality Assessment.....	5-1
5.1 Summary of Local Source Water Monitoring Program	5-1
5.2 San Diego River System Water Quality Review.....	5-2
Source Water Review	5-3
Alvarado WTP Influent /Effluent Review	5-12
5.3 Otay-Cottonwood System Water Quality Review	5-20
Source Water Review	5-20
Otay WTP Influent /Effluent Review	5-27
5.4 Miramar System Water Quality Review.....	5-35
Source Water Review	5-36
Miramar WTP Influent /Effluent Review	5-40
5.5 Hodges System Water Quality Review	5-49
Source Water Review	5-49
 Chapter 6: Conclusions and Recommendations	6-1
6.1 Conclusions	6-1
Conditions within the Local Source Water System.....	6-1
Potential Contaminant Sources within the Local Source Water System.....	6-2
Assessment of Source Waters.....	6-2
Assessment of Regulatory Compliance	6-4
6.2 Watershed Management and Control Practices.....	6-5
6.3 Recommendations	6-6
 Appendix 1: Soil Categories within Local Source Water System Boundaries	A1-1
Appendix 2: Vegetation within Local Source Water System Boundaries	A2-1
Appendix 3: Wildlife within Local Source Water System Boundaries.....	A3-1
Appendix 4: City of San Diego Dreissena Mussel Annual 2009 Report.....	A4-1
Appendix 5: Water Quality Data	A5-1
Appendix 6: References	A6-1